Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte ROLAND GEVAUD and GILLES BARET

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Appeal No. 1998-1872
Application No. 08/568,285

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HEARD: JANUARY 10, 2001

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Before JERRY SMITH, LALL, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-5, which are all the claims in the application.

We affirm-in-part.

BACKGROUND

The disclosed invention is directed to a helium leak detector for detecting leaks in a device under test. Claim 1 is reproduced below.

> 1. A leak detector including at least one analysis unit connected to the inlet of a first secondary pump, a pre-evacuation set connected to an inlet coupling, the inlet of said pre-evacuation set further being connected to the outlet of said first secondary pump via a pipe provided with a first valve, wherein said pre-evacuation set comprises a second secondary pump and a mechanical primary pump connected together in series, and wherein a pipe provided with a second valve connects an intermediate point of said first secondary pump to the inlet of said secondary pump.

The examiner relies on the following references:

Saulgeot	4,773,256	Sep. 27, 1988
Baret	5,297,422	Mar. 29, 1994

Claims 1-5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Saulgeot and Baret.

We refer to the Final Rejection (Paper No. 8) and the Examiner's Answer (Paper No. 15) for a statement of the examiner's position and to the Brief (Paper No. 14) and the Reply Brief (Paper No. 17) for appellants' position with respect to the claims which stand rejected.

OPINION

Grouping of Claims

Appellants submit separate arguments (on page 11 of the Brief) for instant claim 4. We first consider independent claim 1 as representative of the subject matter on appeal, and will then consider the merits of claim 4 separately. See 37 CFR § 1.192(c)(7).

Claim 1

In the rejection set forth on pages 2 and 3 of the Final Rejection, the examiner contends that the artisan would have considered the combined teachings of Saulgeot and Baret to render the claimed subject matter as a whole obvious. Saulgeot discloses (Figure 2) a leak detector, but discloses a single mechanical primary pump 5 as a "pre-evacuation set," rather than a second secondary pump and a mechanical primary pump connected together in series. Compare instant Figure 1, with pumps 6 and 7 comprising pre-evacuation set 5.

The examiner turns to Baret (see also the further explanation on page 4 of the Answer) as disclosing that mechanical primary pumps may employ oil seals which can contaminate a system. Baret's solution is to employ a dry pump 4 (Figure 1), but to also provide a mechanical pump 3 in series with the dry pump in order to remedy deficiencies inherent in dry pumps.

Appellants submit arguments in the Brief which are admitted to be directed to unclaimed features of the invention. For example, claim 1 says nothing about a "partial reverse flow detection mode" or a "Large Leakage Mode." (See Brief, page 8.) Although

the arguments may have been submitted in support of the premise that the rejection is based on improper hindsight, we find them unpersuasive for any purpose. Appellants appear to recast the rejection in order to allege deficiencies in a new, different rejection, in particular focusing on the functions of Baret that are separate from Baret's description of pre-evacuation.

We find that Saulgeot, at column 2, lines 50 through 58 discloses that part 9 (Figure 2) is initially evacuated by primary pump 5 working through valve 2, and then by primary pump 5 and turbomolecular pump 7 working in series via valves 3 and 12. There is thus a distinct phase of evacuation of the part under test. Baret discloses, at column 3, lines 32 through 42, a "pre-evacuation" in a distinct phase comprised of two stages. Dry primary pump 4 (Figure 1) evacuates the test piece at inlet 5 via valves 7 and 10, and then works in series with mechanical secondary pump 3 via valve 7. Thus Baret, as does Saulgeot, discloses a distinct phase of evacuation. The evacuation phases can be considered apart -- in effect, independent -- from the later testing phases, as far as the teachings of the references are concerned. Appellants' characterization on page 2 of the Reply Brief is contrary to the disclosure of Baret, and contrary in particular to column 3, lines 32 through 42. We disagree with appellants' assessment that "[t]here is no reference to the pumps 3 and 4 as a set, nor any description of them working as a set."

While we recognize that replacing Saulgeot's primary pump 5 with a mechanical pump and a dry primary pump in series might not result in a system that is suitable for

appellants' disclosed purposes, we agree with the examiner that such a combination was suggested by the references and meets all the requirements of instant claim 1.

At the oral hearing appellants' counsel expressed agreement with our finding that the artisan would have regarded the mechanical primary pump 5 disclosed by Saulgeot to be representative of mechanical primary pumps inclusive of the mechanical pumps using oil seals, as described in the Baret reference. Baret's teachings directed to replacement of such pumps with a dry primary pump connected in series with a mechanical pump would have motivated the artisan to replace such a mechanical pump having an oil seal.

While the prior art may have suggested a combination as proposed by appellants on page 2 of the Reply Brief, that theory is not dispositive. The teachings of the references would have suggested the combination submitted by the examiner. Whether the references might also have suggested other combinations that are outside the scope of the instant claims does not weaken the findings supporting the conclusion of prima facie obviousness of the subject matter as a whole.

Appellants submit another argument, as discussed in particular on pages 9 and 10 of the Brief and expanded in the Reply Brief. Appellants propose that Saulgeot's system, with mechanical primary pump 5 working alone and then in series with turbomolecular pump 7, already solves the problems that Baret teaches as existing in the prior art. We are cognizant of that possibility, but our evaluation of the evidence before us leads us to conclude that the weight of the evidence establishes a prima facie case for obviousness.

There is nothing pointed out in the references that persuades us of the correctness of the argument, in view of what claim 1 actually requires. The combined teachings of the references would have suggested replacing pump 5 of Saulgeot with two pumps in series as taught by Baret. Claim 1 includes within its scope leak detectors which include a turbomolecular pump in series with a mechanical secondary pump, which in turn is in series with a dry primary pump. No basis is pointed out in the references to show that the problems inherent with dry primary pumps, as taught by Baret, were already remedied by means of a portion of turbomolecular pump 7, and the artisan thus would have recognized that the second mechanical secondary pump 3 in Baret would be entirely unnecessary.

That the combination may have been regarded as redundant, undesirable, or even inoperative by the artisan is not based on the teachings of the references themselves. We only have arguments of counsel in support of the proposition that the combination would have been considered redundant or of no advantage. Arguments of counsel are not evidence. See, e.g., Meitzner v. Mindick, 549 F.2d 775, 782, 193 USPQ 17, 22 (CCPA 1977); In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

For the foregoing reasons we sustain the examiner's rejection of claims 1-3, as appellants have not shown the rejection of claim 1 to be in error, and claims 2 and 3 fall with claim 1.

Claim 4

Appellants assert (Brief, page 11) that the "second secondary pump" -- pump 3 in Figure 1 of Baret, as contemplated by the rejection -- is not disclosed or suggested as comprising two portions: a turbomolecular blade type portion; and a Holweck type portion. The examiner responds (Answer, page 5) that Baret, in particular at column 3, lines 17 through 21, discloses that pump 3 is composed of two stages, with a turbomolecular blade pump as a first stage and a second stage that may be either a turbomolecular blade pump or of the Holweck type. However, we agree with appellants that the plain language of the Baret reference discloses that the "pump," rather than a "stage," may be either a turbomolecular blade pump or of the Holweck type, and thus fails to meet the requirements of claim 4. Since the examiner has not provided any extrinsic evidence to show that the plain language of the Baret reference is in error, and has not supplied any rationale whereby the references may have suggested modification of pump 3 of Baret along the lines of instant claim 4, we cannot sustain the rejection of claim 4, nor claim 5 dependent therefrom.

CONCLUSION

We have affirmed the section 103 rejection of claims 1-3, but have reversed the rejection of claims 4 and 5. The examiner's decision in rejecting claims 1-5 is thus affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JERRY SMITH Administrative Patent Judge	)
PARSHOTAM S. LALL Administrative Patent Judge	) BOARD OF PATENT) APPEALS) AND) INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)

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